MINUTES
of the
THIRD MEETING
of the
INFORMATION TECHNOLOGY AND TELECOMMUNICATIONS OVERSIGHT COMMITTEE

August 10, 2007
New Mexico State University
Las Cruces, New Mexico

The third meeting of the Information Technology and Telecommunications Oversight Committee (ITOC) was called to order by Representative Debbie A. Rodella, chair, at 9:00 a.m. at New Mexico State University (NMSU) in Las Cruces.

Present
Rep Debbie A. Rodella, Chair
Sen. Vernon D. Asbill
Rep. Janice E. Arnold-Jones
Sen. Linda M. Lopez
Rep. Don L. Tripp
Rep. Luciano "Lucky" Varela

Absent
Sen. John Arthur Smith, Vice Chair
Sen. Rod Adair
Sen. Richard C. Martinez
Rep. Richard D. Vigil
Rep. Peter Wirth

Advisory Members
Rep. Kathy A. McCoy

Rep. Elias Barela
Sen. Mark Boitano
Sen. Pete Campos
Sen. Carlos R. Cisneros
Sen. Kent L. Cravens
Sen. Phil A. Griego
Sen. Gerald Ortiz y Pino
Sen. William H. Payne
Rep. Jeannette O. Wallace

Staff
Randi Johnson, Legislative Council Service (LCS)
Manu Patel, Legislative Finance Committee (LFC)
Zach Taylor, LCS
Doug Williams, LCS

Guests

The guest list is in the meeting file.

Copies of all handouts and written testimony are in the meeting file.

Representative Varela called the meeting to order at 9:15 a.m.

The minutes of the June 14 and July 2, 2007 meetings were adopted.

Friday, August 10

Department of Information Technology (DOIT); Transfer of Agency Functions, Budget, Work Plan, Organizational Structure

—Roy Soto, Secretary, DOIT

The mission of the department is to provide cost-effective and efficient enterprise products, services and solutions within a secure and reliable environment for customers through leadership, strategic planning, standards and policy, architecture and oversight.

The department vision is to be the trusted leader in delivering enterprise information technology (IT) services and solutions that will enable state government to better serve the public. Core values are:

- professionalism - high standard of excellence and ethics;
- reliability - building trust through proven dependability and security;
- accountability - committed to success and innovation and to promoting creativity and agility in delivery solutions; and
- communication - establishing effective partnerships with customers.

Key areas of focus included the following:

- improving efficiency and effectiveness in delivery of enterprise services;
- building partnerships with our customers and providing excellent customer service;
- improving the state's foundation to support enterprise services;
- expanding and enhancing internet, voice, data and radio services;
- providing a secure and reliable environment for agencies and citizens to conduct e-government interactions; and
- providing guidance and clear oversight to promote quality and compliance for executive agencies.

The department is organized as shown in the following table.

Bureau/Office	Mission
Enterprise Customer Care	Provides enterprise help-desk functions and acts as the first line of contact to address any issues with services.
Customer Relationship Management	Manages the agency relationships on behalf of DOIT with emphasis on delivery of services and customer satisfaction.
Training	Promotes the development of IT knowledge, skills and competencies throughout the enterprise.

Web and Media Services	Provides web site and media design, development and hosting services. *Note: This does not include web application development.
Enterprise Services Support	Provides application and database support for the maintenance and operations of existing systems.
Enterprise Services Development	Provides new enterprise application architecture and design and development services. Provides subject matter expertise as necessary.
Project Management Services	Provides project management services for enterprise projects. Develops state project management methodology.
Project Oversight and Compliance	Provides oversight of IT projects and plans within the state by ensuring compliance with state rules and requirements.
Quality Assurance	Promotes and ensures quality throughout all products and processes in the enterprise.
Office of Strategic Planning	Promotes strategic planning across the enterprise.
Office of Contract/RFP Review	Provides contract and request for proposal (RFP) review for all IT contracts and RFPs.
Office of IT Security	Provides and maintains a secure business environment through policy development and enforcement.
Office of Business Continuity	Coordinates business continuity (BC) and disaster recovery (DR) planning to ensure the state will be prepared to continue to operate in the event of a disaster.
Engineering and Design	Provides enterprise IVR engineering and design services.
Design Implementation (Installation)	Provides new enterprise IVR service delivery and installation.
Daily Administration (Maintenance)	Maintains upgrades and responds to IVR services.
Enterprise Mainframe and Server Operations	Provides the operation and support of mainframe, Windows, Unix and Linux servers and storage devices to ensure the availability of server services to customers throughout the enterprise.
Enterprise PC and LAN Support Services	Provides desktop products and LAN services.
Financial Management Bureau	Responsible for the development and implementation of fiscal policies and progress for the department.
Budget Bureau	Responsible for the development, management and submission of the agency appropriation request and operations budget.

General Ledger Bureau	Responsible for the maintenance of central financial records and the preparation of financial statements detailing the financial activities of the department.
Purchasing and Contracts Bureau	Provides procurement services and support to all department operations.
Human Resources Bureau	Provides personnel services and ensures compliance with all personnel laws and regulations, agency policies and collective bargaining standards.

The department's fiscal year 2008 budget is summarized in the table below.

Category	Total in Thousands of Dollars
Salaries and Benefits	$15,773.6
Contractual	7,521.3
Other	20,338.0
Other Financing Uses	1,860.3
Total	**$45,493.2**
Full-Time-Equivalent Employees	
Office of the Chief Information Officer	11
Computer Division	86
Internal Service Division	132
Total	**229**

DOIT has contracted for an independent review of computer security. Also, an Office of Business Continuity has been created in response to the May shutdown of the computer system.

An Office of Cost Recovery and Allocation has been created because of repeated federal audit exceptions. At present, $4.2 million of federal funding is in question.

Representative Varela asked about the DOIT organizational chart and the legislation that created the department. Mr. Soto identified each function and noted that the legislation allows for flexibility in creating additional operating divisions.

Representative Varela noted that DOIT is an enterprise department and needs to have a way to enforce interagency transfers. Mr. Soto is working with Department of Finance and Administration (DFA) to encumber appropriations of state agencies and transfer funds to DOIT upon submission of documentation demonstrating that services were rendered.

Representative Varela asked about the various division directors. Mr. Soto explained that all division directors are exempt employees.

Representative Varela asked if the commission has been constituted. Mr. Soto explained that five members have not yet been appointed. Recommendations to the governor have not been received from the Public Regulation Commission, Los Alamos National Laboratory, counties and municipalities. Representative Varela noted that the commission is not just advisory; it has the responsibility to approve policies. DOIT is moving forward with RFPs without commission approval.

Representative Arnold-Jones asked about the deputy secretary's qualifications. Conny Maki stated that she has academic credentials in mathematics and has worked in the IT field for 30 years. She has served as the Chief Information Officer (CIO) for the Human Services Department and has owned her own business developing software.

Elisa Storie has been working in IT for 29 years. She started as a programmer. She worked in corrections (as CIO) and economic development in IT. She developed the NCIC system.

Michael Sanchez is a retired Air Force financial officer. He has worked for the state for 19 years in a financial capacity.

Representative McCoy asked about nonpayment of interagency obligations. Mr. Soto said that some of it is inadvertent and some intentional.

Representative McCoy asked about the in-house capability of employees with respect to programming and other issues. Mr. Soto responded that the department has many very talented employees who have excelled in establishing the new department. Also, the department plans on extensive training.

Representative McCoy asked for a copy of qualifications of employees that are yet to be hired. Mr. Soto said that he would provide a copy of the qualifications.

Senator Lopez asked about the timing of agency IT plans. Mr. Soto said that the plans are to be submitted by September 4. Instructions have already been sent to agencies.

Representative Tripp asked about plans for redundancy. He hypothesized a fire at the Simms Building. Mr. Soto said that tapes are stored off premises and sent to a contractor in Philadelphia. In addition, disaster recovery plans are being reviewed because the current situation is that it would take two to three weeks to get back on-line in the event of a disaster. Representative Tripp asked about instant redundancy using a university computer system linked by fiber optics. Mr. Soto said that he is exploring networking with a New Mexico company and possibly with a neighboring state government.

Representative Tripp said that he would like statistics about state employees answering telephones instead of the public getting voice mail. Mr. Soto said that he

would explore the issue.

Representative Arnold-Jones suggested that the public broadcasting company should make a presentation regarding interoperability, e.g., the Amber alert system.

Representative Rodella requested an organizational chart with names and a department directory.

Representative Rodella suggested that the committee send a letter to those organizations that have not yet made nominations to the IT Commission.

Representative Rodella suggested that DOIT should prepare an inventory of all state-owned computer equipment.

Department of Homeland Security; Interoperability

—John Martinez

In order to successfully respond to day-to-day incidents and large-scale emergencies, the state's emergency responders need interoperable communications—the ability to communicate across disciplines and jurisdictions on demand and in real time.

The federal Department of Homeland Security (DHS) requires that all grant recipients submit by the end of 2007 a statewide communications interoperability plan. The SAFECOM program within the DHS recommends that states, through their governors, other state and local policymakers and local emergency responders, use a statewide strategic planning process that gathers the perspectives of all emergency responders. By using a practitioner-driven approach that involves local, tribal, state and federal stakeholders, a strategic plan is under development to meet the needs of end users. They are therefore more likely to adopt such a plan.

The PSIC grant program is designed to provide funding to states and territories of the United States with which they can begin the process of making communications systems within the state or territory interoperable between emergency response agencies. The PSIC grant is a one-time grant opportunity that terminates on September 30, 2010. The funds provided through this grant are to be used to enhance capabilities in the areas of voice, data and video signals as determined by the Strategic Statewide Communications Interoperability Plan (SSCIP). The PSIC grant guidelines also encourage cost-effective and spectrum-efficient technology solutions.

The eligible applicants for this grant program are the 50 states and six territories. The governor of each state and territory has designated a state administrative agency (SAA), which can apply for and administer the funds awarded under the PSIC grant program. Accordingly, the relevant SAA is the only agent eligible to apply for the funds identified in this program announcement. Local agencies (counties, cities, tribal agencies) cannot apply for or receive grant funds directly; however, local agencies can

receive funding from the SAA through the pass-through process.

The New Mexico Department of Homeland Security and Emergency Management (NM DHSEM) released a fact sheet, which details the PSIC guidance and reflects on the direction that New Mexico is taking for statewide interoperable communications to all public safety agencies (law enforcement, fire and emergency medical services, the Department of Public Safety and state health organizations, among others). Face-to-face meetings were conducted with all public safety agencies with an emphasis on the mandatory requirements. Working groups have been established in the six preparedness areas, including Native American nations, tribes and pueblos. The Statewide Interoperable Communications Working Group (SICWG) has been created.

Local jurisdictions have come together in the state-determined preparedness areas to compile data via tactical interoperable communications plans (TICP). The TICP's data is input into the communications assets survey and mapping tool (CASM). Data are rolled up for analysis of statewide capabilities and assets for the SSICP. Once the assets and capabilities have been identified the communication deficiencies will be addressed and solutions determined. The issue of frequency consensus across the state is being addressed by the SICWG. This will allow all agencies to intercommunicate on set frequencies no matter what part of the state they are called to assist.

Sustainability of interoperable communications is dependent on perpetual inventory management. Management of the CASM database and, equally important, frequency management will be hosted with the NM DHSEM. A position will be created within NM DHSEM as the state frequency coordinator.

Due to the overwhelming cost of converting to a common frequency and interoperable communications platform statewide and the state's topology, New Mexico is moving toward narrow banding with the ability to intercommunicate with the 700 MHz frequency band by employing the use of gateways. A gateway is a device that allows a dispatcher to click and drag all responding frequencies into the gateway, thus allowing disparate hardware and frequencies to communicate transparently. Gateways will be placed at all dispatch locations. Other strategies will be used at tower locations to incorporate the state's Digital Microwave Network.

The inability to communicate is becoming more problematic and even life threatening for first responders. The problem was created by localized approaches to communications rather than a global strategy. The problem with interoperable communications is not technology. The problem is a need for planning, training, coordination and practice exercises.

Representative Arnold-Jones inquired how DHS is communicating with local government. Mr. Martinez said that there is a working group that meets once a month. She asked about federal DHS grants and how they have been utilized. Mr. Martinez responded that the new department has a grant management program within the

Administrative Division. In the past, the Emergency Management Division of the Department of Public Safety was the recipient of federal grants and did not track the use of funds. This is changing.

Representative Arnold-Jones asked about getting out simple information at the local level about things like snow emergencies. Mr. Martinez noted that the new department is exploring the issue and will work with DOIT.

Representative Tripp asked about the department's responsibility with respect to security. Mr. Martinez responded that the department is responsible for physical security, e.g., access to state buildings. He noted that state employee ID badges all look different and are easy to forge. The department is working on standards for ID badges that meet federal standards. Cyber security is the responsibility of DOIT.

Representative Varela asked about the gateway and narrow banding. Mr. Martinez responded that the gateway is a solution that makes it possible for disparate communications systems to network seamlessly without replacing equipment.

Representative Rodella stressed the need for training with the use of gateways. She also asked for a copy of the grant application.

New Mexico Tech; Interoperability

—Kim Kvamme

"Interoperability is the ability of two or more parties (e.g., public safety agencies) to exchange information, when and where it is needed, even when disparate communication/information systems are involved. Information may be exchanged among fixed facilities, mobile platforms and portable (personal) devices." (advanced generation of interoperability for law enforcement program)

"To be most effective, interoperability needs to be available for daily operations and for emergency use. Additional considerations include suitability for disaster sites as well as fixed-station use, ease and speed of deployment, central control capability, network capacity of the system and cost."

There are two strategies for data interoperability:

- unified emergency response system:
  - high degree of interoperability; and
  - too costly, slow to implement, and one size fits all;

  or
- unified information architecture:
  - flexible, expandable, customizable;
  - speeds adoption; and
  - cost effective.

There are two strategies for voice interoperability:

- wide-area shared or trunking radio systems:
  - high degree of interoperability; and
  - too costly, slow to implement, one size fits all;

  or
- cross-connect gateways:
  - connects legacy and diverse types of voice communication systems;
  - quick to deploy; and
  - cost effective.

Representative Arnold-Jones asked how PRTC decided on a system. Mr. Kvamme responded that the first thing that needs to be done is to identify the goal of the system and the problem that needs to be solved.

Interoperability Solutions and Technologies

—David Fletcher, Consultant, GPC, Inc.

Interoperability is a measure of the degree to which various organizations or individuals are able to work together to achieve a common goal. Interoperability means making government work more effectively by getting the required information to the right people at the right time. Canadian public safety and emergency preparedness plan interoperability provides and accepts services from other systems and uses the services so exchanged to enable them to operate effectively together. Interoperability may also mean the capability of systems to communicate with each other and to exchange and use information, including content, format and semantics.

Interoperability means more than just public safety communication interoperability. State-level interoperability needs span functions between all levels of government. Examples include:

- water resource management;
- transportation;
- public safety; and
- land records management.

Interoperability has several scoping levels. These are:

- international. The ability of organizations or systems to function or operate across national borders (e.g., homeland security);
- national. The ability to access systems across the nation in a consistent manner (e.g., emergency preparedness, NIMS); and
- regional/local. The ability to deploy efficient services and systems (e.g., E911, incident detection/emergency response systems). The ability of products from different vendors to communicate (e.g., first responder radios). Most interoperable information needs involve personal identity and place data.

The three interoperability types are:

- institutional or strategic, involving regulatory, financial, contractual, governance or other formal relationships between persons;
- procedural or tactical, involving business processes and workflows organized into systems that collect, manage and exchange information; and
- technical, involving the ability of heterogeneous software and hardware components to communicate meaningfully.

The formal arrangement of these persons, relationships, workflows, information contents, technical standards and product components is called an enterprise architecture.

The interoperability framework has three dimensions:

- horizontal interoperability involves information exchanges among similar persons or components (e.g., between USDHS and NMDPS or between a state policeman and a county sherriff's deputy);
- vertical interoperability involves information exchanges from one person or component to related persons or components (e.g., between a computer application and a database); temporal interoperability involves compatibility between successive generations of persons or components; and
- achieving sustainable interoperability requires that all three dimensions be understood and addressed. Note that each interoperable dimension may include multiple standards.

In summary, interoperability is an enabler of business value and does not, by itself, add value. Goals and objectives for interoperable relationships should be defined by desired policy outcomes and not in terms of product offerings or technology outputs. People, their language and the subcultures they live in have a far greater influence on interoperability than the "stuff" does. One strategy does not "fit" all interoperable needs.

Representative Arnold-Jones asked about solutions for motivating people to work together. Mr. Fletcher responded that the key is leadership.

NMSU State Project Review

Bioinformatics

—Brook Milligan

NMSU envisions a New Mexico with scientific information and computational resources conveniently available to support education, research, decision making, management and policy.

NMSU is an information service center serving New Mexico's educators, researchers, policymakers, managers and the public. The mission includes:

- supporting public policy decisions through general access to scientific information;
- leveraging scientific information to foster intelligent stewardship of New Mexico's natural resources;
- providing transparent access to scientific data, including genomic, biodiversity, spatial and environmental information; and providing convenient access to software tools capable of analyzing scientific data.

Aerospace Research
—Steve Horan

NMSU has been participating in the Air Force University nanosatellite program since 1999. A "nanosatellite" is defined as:

- having a mass not to exceed 30 kg;
- sized to fit within a 0.5 m envelope on each side;
- being built to meet space shuttle materials, loading, and safety factors; and
- requiring universities to develop their own ground stations for space.

NMSU is developing nanosatellites as part of the senior capstone design classes in which:

- mostly EE and ME students (approximately 20/year) participate;
- students from other majors, such as CS, IE and engineering physics, are free to join in; and
- all class participants must be United States citizens or from a NATO country.

NMSU is developing a "standard" standard VHF/UHF radio configuration that has been adopted by other schools in the program and that is based on commercial amateur radio hardware but is fully vetted through the NASA safety process for the space shuttle.

Representative Tripp inquired if NMSU offers a degree in aerospace engineering. Mr. Horan responded that NMSU has been involved with aerospace since 1946 and now offers a degree.

Representative Arnold-Jones noted that the NMSU payload looks similar to federal government payloads. Mr. Horan responded that the design is based on the United States Air Force model.

Physical Science Laboratory
—Joanne Esparza

The NMSU/Physical Science Laboratory is proud of its 60-year history of

responsive support to Department of Defense and the White Sands missile and rocket testing community. It was established in 1946 to support missile testing of V-2 rockets at White Sands Proving Ground. Students provide data reduction support. The laboratory is a multidisciplined, aerospace- and defense-oriented scientific and technical organization and is a NASA-sponsored Suborbital Center of Excellence with 377 employees (including 80 students). Fiscal year 2006 revenues were $64 million.

Second Life, a 3-D Virtual Education and Social World
—Bethany Bovard

Second Life is a free web site (www.secondlife.com). The site enables virtual political, social and financial activities. It is essentially a networking tool.

The committee adjourned at 3:00 p.m.